

Table 2: Variety characteristics in order of maturity.

Variety	Fruit Color	Fruit Use	Relative Bloom Time	Potential Cross-Pollinizers
Gala	Yellow-orange to red	Fresh	Early to Midseason	Golden Delicious
Empire	Dark red over green background	Fresh, cooking	Early	Golden or Red Delicious, Gala
Jonagold*	Yellow with light red stripes	Fresh, cooking	Midseason	Gala, Empire
Golden Delicious	Yellow green to light yellow	Fresh, cooking	Midseason to Late	Red Delicious, Gala, Empire
Red Delicious	Red	Fresh	Early	Golden Delicious, Gala
Stayman*	Blush to red	Fresh, cooking	Midseason	Gala, Golden or Red Delicious
Rome	Blush to red	Fresh, cooking	Late	Fuji, Braeburn
Braeburn	Green with light red blush	Fresh	Midseason	Rome, Fuji
Fuji	Green with red stripes	Fresh	Midseason	Rome, Braeburn

* Pollen produced by these varieties is sterile.

Varieties - The variety of apple selected should be based on fruit characteristics, bloom time and pollen compatibility. Table 2 (above) shows several popular varieties in North Carolina, listed in order of fruit maturity. Nurseries can also provide varietal information and pollen compatibility suggestions. Crabapple trees can also be used as pollinizers if they bloom at the same time as the desired variety.

Pollination - All apple varieties should be considered self-incompatible, meaning that they cannot pollinate themselves or any flowers of the same apple variety. The highest quality fruit is harvested when cross-pollination occurs with a suitable pollinizer variety. You will need to plant at least two varieties of apple trees together in order to maximize fruit production and quality. Make sure that the varieties you choose have overlapping bloom dates, so that both varieties bloom at the same time. Some varieties, such as Winesap, Mutsu, Jonagold, and Stayman, produce sterile pollen and should never be used as pollinizers. However, pollen from other varieties can be used to

pollinate these pollen-sterile varieties. Remember, two trees of the same apple variety cannot be used for cross-pollination. Since the pollen from apple blossoms is transferred primarily by bees, be careful not to spray insecticides during bloom when honey bees are present.

Site Selection

Soils - Take a soil test prior to planting your apple trees. Your local County Extension Center can instruct you in collecting the soil sample, help you interpret the results, and provide valuable information about the soil in your county. Results from the soil test will determine the soil amendments necessary to correct nutrient deficiencies and adjust soil pH. The amendments should be worked into the soil to a depth of 12 to 18 inches where the tree will root, not just the planting hole. Apple trees will tolerate a wide range of soils as long as water and nutrients are not limiting and soil pH is adequate. Avoid heavy, poorly-drained soils and low spots, since apple trees cannot survive if water remains standing in the root zone.